

REMARKS

Reconsideration is requested in view of the above amendments and the following remarks. Claim 1 is amended. New claim 6 is added. Claims 1-6 are pending.

The amendments to claim 1 are supported by the original disclosure, for example page 7, lines 1-2 and Figures 1 and 3-6. New claim 6 is supported by the original disclosure, for example Figures 1 and 3-6. No new matter has been added.

I. Claim rejections

Claims 1-3 are rejected under 35 USC 103(a) as being unpatentable over US 6,150,920 to Hashimoto et al: (Hashimoto) in view of US 6,359,546 to Oh. Applicants note that claim 5 is not listed as being subject to this rejection, but is discussed in the body of the rejection as being rejected. Applicants will assume that claim 5 is rejected in view of Hashimoto and Oh.

In addition, claim 4 is rejected under 35 USC 103(a) as being unpatentable over Hashimoto and Oh, and further in view of US 6,492,896 to Yoneda.

Applicants respectfully traverse the rejections and request reconsideration in view of the following.

Claim 1 recites that the auxiliary electrode extends onto the flat upper surface of the cover coat beyond the tapering edge. In addition, claim 1 recites that the nickel-plated layer and the soldering layer extends onto the flat upper surface of the cover coat beyond the tapering edge. An advantage of these features is to prevent airborne sulfur, for example hydrogen sulfide, from reaching the upper electrodes for corrosive reaction therewith (see, e.g., page 7, lines 18-21).

Hashimoto and Oh do not teach or suggest at least these features of claim 1. In the rejection, the protection layer 54 in Figure 8 of Hashimoto is relied upon. Further, the rejection asserts that the protection layer will taper to a degree as part of the manufacturing process of laying the layer. However, the protection layer 54 (as well as the protection layer 115 in Figure 20) is entirely flat. This is evident from the disclosed manufacturing process and Figures 9a-9d and 10a-10d, where the protection layer 54 results from the division of a larger protection layer 66 which is itself entirely flat as shown in Figures 9d and 10a. Since the protection layer 54 is flat and does not have a tapering edge, Hashimoto does not teach or suggest a nickel-plated layer,

a soldering layer and an auxiliary electrode that extend onto the flat upper surface of a cover coat beyond the tapering edge of the cover coat.

The assertion that the protection layer 115 of Hashimoto will taper to a degree as part of the manufacturing process as does the layer 35 in Figure 5 of Hashimoto is without merit. There is simply no support for this assertion. No tapering is illustrated in Figures 8 or 20 (or Figures 9a-9b, 10a-10d, 21a-21d, and 22a-22d) of Hashimoto. If tapering did occur, then it is logical to conclude that Hashimoto would have illustrated such tapering as he did in Figure 5. However, no tapering is illustrated in Figures 8 or 20. Instead, the layers are illustrated as being entirely flat, both after laying the larger layer 66 (e.g. Figures 9d, and 10a), as well as after dividing the substrate into smaller pieces and into the final chip (e.g. Figures 10b, 10c and 10d).

Further, the layer 35 in Figure 5 of Hashimoto is cut only in a direction transverse to the electrode 36 and not in a direction parallel to the electrode 36 (see, e.g., the element 47 in Figures 7a-7c). In the embodiment of Figure 5 where the layer 35 has a tapered edge, the nickel-plated layer 37 and the soldering layer 38 extend only up to the tapering edge of the layer 35 and do not extend onto the flat upper surface of the layer 35. Further, the electrode 36 extends short of the tapering edge of the layer 35.

Oh is relied upon to teach, among other features, a cover 40 having a tapered edge. However, even if the layer 40 of Oh is considered a cover coat, Oh does not teach a nickel-plated layer, a soldering layer and an auxiliary electrode that extend onto the flat upper surface of the layer 40 beyond the tapering edge of the layer 40. Even if Oh is considered to teach a tapered edge on the layer 40, Oh also teaches that a nickel-plated layer, a soldering layer and an auxiliary electrode should not extend onto the flat upper surface of the layer beyond the tapering edge. Therefore, there is no teaching or suggestion in the prior art to make the combination of Hashimoto and Oh.

Yoneda fails to remedy the deficiencies of Hashimoto and Oh. In Yoneda, a nickel-plated layer 25a and a soldering layer 25b extend only up to a tapering edge of an outermost protective film 53. Further, the electrodes 24, 34 do not extend onto a flat upper surface of the film 53 beyond the tapering edge.

For at least these reasons, claim 1 is patentable over Hashimoto, Oh and Yoneda. Claims 2-5 depend from claim 1 and are patentable along with claim 1 and need not be separately distinguished at this time.

SN 10/786,396

In response to Office Action mailed February 10, 2005.

New claim 6 depends from claim 1 and is patentable along with claim 1. Hashimoto, Oh and Yoneda do not teach the features recited in claim 6.

II. Conclusion

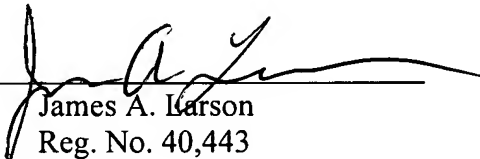
In view of the above, favorable reconsideration in the form of a notice of allowance is requested. Any questions regarding this communication can be directed to the undersigned attorney, Douglas P. Mueller, Reg. No. 30,300, at (612) 455-3800.

Respectfully submitted,

HAMRE, SCHUMANN,
MUELLER & LARSON, P.C.
P.O. Box 2902
Minneapolis, Minnesota 55402-0902
(612) 455-3800

Dated: 8 August 2005

By


James A. Larson
Reg. No. 40,443

DPM:JAL:hjm

Customer Number 52835
